10/509,576

| Ref # | Hits | Search Query | DBs | Default Operator | Plurals | Time Stamp |
|----------|------|--|---|---------------------|---------|------------------|
| L1 | 2 | ("5242828").PN. | US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT | OR | OFF | 2005/10/05 13:29 |
| L2 | 4 | lyon same biosensor | US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB | OR | OFF | 2005/10/05 14:11 |
| L3 | 119 | lyon and biosensor | US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB | OR . | OFF | 2005/10/05 14:11 |
| L4 | 8 | biosensor same (PEG or polyethylene adj glycol) same gold | US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB | OR | OFF | 2005/10/05 14:13 |
| L5 | 86 | nanoparticle NEAR5 (biosensor or chip\$1) | US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB | OR | OFF | 2005/10/05 15:29 |
| L6 | 0 | nanoparticle NEAR3 (poyethylene adj glycol) | US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB | OR . | OFF | 2005/10/05 15:29 |
| L7 | 4 | nanoparticle NEAR3 (polyethylene adj glycol) | US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB | OR | OFF | 2005/10/05 15:30 |
| L8 | 30 | nanoparticle\$1 NEAR4 (polyethylene adj glycol) | US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB | OR | OFF | 2005/10/05 16:21 |

| L9 | 306 | "12093" | US-PGPUB; USPAT; | OR | OFF | 2005/10/05 16:21 |
|-----|-----|---|---|------|-----|------------------|
| | | | USOCR; EPO; JPO; DERWENT; IBM_TDB | | | |
| L10 | 2 | high adj affinity adj peptide same nanoparticles | US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB | OR | OFF | 2005/10/05 16:23 |
| L11 | 1 | WO adj "200178786" | US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB | OR | OFF | 2005/10/05 16:27 |
| L12 | 2 | ("5990479").PN. | US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT | OR | OFF | 2005/10/05 16:49 |
| L13 | 2 | ("20020072069").PN. | US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT | OR | OFF | 2005/10/05 16:49 |
| S1 | 114 | biosensor same (PEG or polyethylene adj glycol) | US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB | OR . | OFF | 2005/10/05 14:12 |
| S2 | 20 | S1 and particle | US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB | OR | OFF | 2005/10/05 11:25 |
| S3 | 901 | nanoparticle\$1 same (PEG or polyethylene adj glycol) | US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB | OR | OFF | 2005/10/05 14:10 |
| 54 | 40 | S3 and coated NEAR3 (PEG or polyethylene adj glycol) | US-PGPUB; USPAT; USOCR; EPO; JPO; DERWENT; IBM_TDB | OR | OFF | 2005/10/05 11:53 |

| S5 | 2 | ("5763191").PN. | US-PGPUB; USPAT; USOCR; | OR | OFF | 2005/10/05 13:29 |
|----|---|-----------------|-------------------------------|----|-----|------------------|
| | | | EPO; JPO; DERWENT | | | |

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NEWS 9 OCT 04 CA/CAplus-Canadian Intellectual Property Office (CIPO) added

NEWS EXPRESS JUNE 13 CURRENT WINDOWS VERSION IS V8.0, CURRENT MACINTOSH VERSION IS V6.0c(ENG) AND V6.0Jc(JP), AND CURRENT DISCOVER FILE IS DATED 13 JUNE 2005

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=>
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SH-fCH2'1-fM2
2-1-3

chain nodes:
1 2 3
chain bonds:
1-2 1-3
exact bonds:
1-2 1-3

Match level: 1:CLASS 2:CLASS 3:CLASS

=> d 11L1 HAS NO ANSWERS STR

 $SH-CH_{2}-CH_{2}$

Structure attributes must be viewed using STN Express query preparation.

=> s 11

SAMPLE SEARCH INITIATED 14:41:49 FILE 'REGISTRY' SAMPLE SCREEN SEARCH COMPLETED - 117530 TO ITERATE

1.7% PROCESSED 2000 ITERATIONS INCOMPLETE SEARCH (SYSTEM LIMIT EXCEEDED) SEARCH TIME: 00.00.01

50 ANSWERS

FULL FILE PROJECTIONS: ONLINE **INCOMPLETE**

BATCH **INCOMPLETE**

PROJECTED ITERATIONS: 2330320 TO 2370880

PROJECTED ANSWERS:

87614 TO 95732

50 SEA SSS SAM L1 L2

=> s 12 sss full

FULL SEARCH INITIATED 14:42:01 FILE 'REGISTRY' FULL SCREEN SEARCH COMPLETED - 2347703 TO ITERATE

42.6% PROCESSED 1000000 ITERATIONS INCOMPLETE SEARCH (SYSTEM LIMIT EXCEEDED) 31297 ANSWERS

SEARCH TIME: 00.00.10

FULL FILE PROJECTIONS: ONLINE **INCOMPLETE**

BATCH **INCOMPLETE**

PROJECTED ITERATIONS: PROJECTED ANSWERS:

2347703 TO 2347703 72664 TO 74288

L3 31297 SEA SSS FUL L1

=> FIL CAPLUS

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FULL ESTIMATED COST 161.33 161.54

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FILE COVERS 1907 - 5 Oct 2005 VOL 143 ISS 15

FILE LAST UPDATED: 4 Oct 2005 (20051004/ED)

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This file contains CAS Registry Numbers for easy and accurate substance identification.

=> s 13

6156 L3 T.4

=> s 14 and (PEG or polyethylene glycol)

33451 PEG 1139 PEGS

33929 PEG

(PEG OR PEGS)

330940 POLYETHYLENE

12194 POLYETHYLENES

334671 POLYETHYLENE

(POLYETHYLENE OR POLYETHYLENES)

337044 GLYCOL

44194 GLYCOLS

352141 GLYCOL

(GLYCOL OR GLYCOLS)

95022 POLYETHYLENE GLYCOL

(POLYETHYLENE (W) GLYCOL)

L5 239 L4 AND (PEG OR POLYETHYLENE GLYCOL)

=> s 15 and nanoparticle

29294 NANOPARTICLE 48793 NANOPARTICLES

51420 NANOPARTICLE

(NANOPARTICLE OR NANOPARTICLES)

L6 10 L5 AND NANOPARTICLE

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ANSWER 1 OF 10 CAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER:

2005:350720 CAPLUS

DOCUMENT NUMBER:

143:44178

TITLE:

Biomedical applications of gold nanoparticles

functionalized using hetero-bifunctional poly(ethylene

glycol) spacer

AUTHOR(S):

Fu, Wei; Shenoy, Dinesh; Li, Jane; Crasto, Curtis; Jones, Graham; Dimarzio, Charles; Sridhar, Srinivas;

Amiji, Mansoor

CORPORATE SOURCE:

Department of Physics, Northeastern University,

Boston, MA, 02115, USA

SOURCE:

Materials Research Society Symposium Proceedings

(2005), 845 (Nanoscale Materials Science in Biology and

Medicine), 223-228

CODEN: MRSPDH; ISSN: 0272-9172 Materials Research Society

DOCUMENT TYPE:

PUBLISHER:

Journal English

LANGUAGE:

To increase the targeting potential, circulation time, and the flexibility of surface-attached biomedically-relevant ligands on gold nanoparticles, hetero-bifunctional poly(ethylene glycol) (PEG, MW 1,500) was synthesized having a thiol group on one terminus and a reactive functional group on the other. Coumarin, a model

fluorescent dye, was conjugated to the PEG spacer and gold

nanoparticles were modified with coumarin-PEG-thiol.

Surface attachment of coumarin through the PEG spacer decreases the fluorescence quenching effect of gold nanoparticles. The

results of cellular cytotoxicity and fluorescence confocal analyses showed that the **PEG** spacer modified **nanoparticles** were essentially non-toxic and could be efficiently internalized in the cells within one hour of incubation.

IT 853684-75-0P

RL: BSU (Biological study, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation)

(synthesis, cytotoxicity study, and fluorescence confocal microscopy of gold nanoparticles functionalized with thiol- and coumarin-terminated poly(ethylene glycol))

RN 853684-75-0 CAPLUS

CN Poly(oxy-1,2-ethanediyl), α -[[(4-methyl-2-oxo-2H-1-benzopyran-7-yl)amino]carbonyl]- ω -(2-mercaptoethoxy)- (9CI) (CA INDEX NAME)

REFERENCE COUNT: 12 THERE ARE 12 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L6 ANSWER 2 OF 10 CAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 2004:904041 CAPLUS

DOCUMENT NUMBER: 141:362759

TITLE: Water-soluble PEGvla

Water-soluble PEGylated semiconductor nanoparticles, their manufacture, and

APPLICATION NO.

DATE

biological diagnostic materials using them

DATE

INVENTOR(S): Ogura, Atsuhiko; Kang, Eui-chul; Kataoka, Kazunori;

Nagasaki, Yukio

PATENT ASSIGNEE(S): NOF Corporation, Japan; Science University of Tokyo

SOURCE: Jpn. Kokai Tokkyo Koho, 12 pp.

KIND

CODEN: JKXXAF

DOCUMENT TYPE: Patent LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.

| | JP 2004300253 | A2 | 20041028 | JP 2003-93900 | 20030331 |
|------|--------------------|---|--|---|--|
| | US 2004250745 | A1 | 20041216 | US 2004-810305 | 20040326 |
| PRIO | RITY APPLN. INFO.: | | • | JP 2003-93900 | A 20030331 |
| AB | The nanoparticles | comprise | (a) group | II-VI semiconductor | |
| | core-shell microcr | ystals h | aving ZnO, | ZnS, ZnSe, or ZnTe | shell and (b) |
| | polyethylene glyco | ls havin | g Mn 300-20 | ,000 which have SH | |
| | group at least one | end and | bind to (a | a) via Cd. The nano | particles |
| | are manufactured b | y reacti | ng (b) with | Ca salts, and (a) | or by adding Cd to the |
| | surface of (a) and | reacting | g with (b). | (b) may have SH g | roup at one end |
| | and CHO, OH, NH2, | or CO2H | at the othe | er end to which biome | ols. showing |
| | specific recogniti | on abili | ty are bour | nd. Thus, a CHCl3 so | olution of CdSe-ZnS |
| | semiconductor micr | ocrystal | s (preparat | cion given) was trea | ted with a phosphate |
| | buffer containing | $\alpha-3$, 3-di | ethoxypropy | /l-ω-mercapto- PEG | |
| | (preparation given |) and Cd | Cl3 under v | vigorous stirring in | the dark. The |
| | reaction mixture w | as mixed | with hexar | ne and phosphate buf: | fer, separated, and |
| | | | | _ | - · · · - · · · · · · · · · · · · · · · |
| | layer. | - | | - | - |
| | | US 2004250745 PRIORITY APPLN. INFO.: AB The nanoparticles core-shell microcr polyethylene glyco group at least one are manufactured b surface of (a) and and CHO, OH, NH2, specific recogniti semiconductor micr buffer containing (preparation given reaction mixture w irradiated with UV | US 2004250745 A1 PRIORITY APPLN. INFO.: AB The nanoparticles comprise core-shell microcrystals having group at least one end and are manufactured by reacting surface of (a) and reacting and CHO, OH, NH2, or CO2H specific recognition abilisemiconductor microcrystal buffer containing \$\alpha\$-3,3-dic (preparation given) and Cd reaction mixture was mixed irradiated with UV (254 nm | US 2004250745 A1 20041216 PRIORITY APPLN. INFO.: AB The nanoparticles comprise (a) group core-shell microcrystals having ZnO, polyethylene glycols having Mn 300-20 group at least one end and bind to (a are manufactured by reacting (b) with surface of (a) and reacting with (b) and CHO, OH, NH2, or CO2H at the other specific recognition ability are bour semiconductor microcrystals (preparate buffer containing α-3,3-diethoxypropy (preparation given) and CdCl3 under we reaction mixture was mixed with hexarirradiated with UV (254 nm) to show the specific reaction of the containing the co | US 2004250745 Al 20041216 US 2004-810305 PRIORITY APPLN. INFO: JP 2003-93900 AB The nanoparticles comprise (a) group II-VI semiconductor core-shell microcrystals having ZnO, ZnS, ZnSe, or ZnTe spolyethylene glycols having Mn 300-20,000 which have SH group at least one end and bind to (a) via Cd. The nanopare manufactured by reacting (b) with Ca salts, and (a) surface of (a) and reacting with (b). (b) may have SH grand CHO, OH, NH2, or CO2H at the other end to which biomospecific recognition ability are bound. Thus, a CHCl3 semiconductor microcrystals (preparation given) was treated buffer containing α-3,3-diethoxypropyl-ω-mercapto-PEG (preparation given) and CdCl3 under vigorous stirring in reaction mixture was mixed with hexane and phosphate buffirradiated with UV (254 nm) to show fluorescence only in |

ΙT 780772-13-6DP, reaction products with CdSe/ZnS core-shell microcrystals and CdCl3

RL: ARG (Analytical reagent use); DGN (Diagnostic use); SPN (Synthetic preparation); ANST (Analytical study); BIOL (Biological study); PREP (Preparation); USES (Uses)

(manufacture of water-soluble PEGylated core-shell semiconductor nanoparticles having ZnO, ZnS, ZnSe, or ZnTe shell, and their application to biol. diagnosis)

780772-13-6 CAPLUS RN

CN Poly(oxy-1,2-ethanediy1), $\alpha-[3-[2-[5-[(3aS,4S,6aR)-hexahydro-2-oxo-$ 1H-thieno[3,4-d]imidazol-4-yl]-1-oxopentyl]hydrazino]-3-oxopropyl]- ω -(2-mercaptoethoxy) - (9CI) (CA INDEX NAME)

PAGE 1-A

$$\begin{array}{c|c}
 & H \\
 & N \\$$

PAGE 1-B

ANSWER 3 OF 10 CAPLUS COPYRIGHT 2005 ACS on STN

2004:868459 CAPLUS ACCESSION NUMBER:

DOCUMENT NUMBER:

TITLE:

142:436504

AUTHOR(S):

Biocompatible gold nanoparticles Tshikhudo, T. R.; Wang, Z.; Brust, M.

CORPORATE SOURCE:

Centre for Nanoscale Science, Department of Chemistry,

The University of Liverpool, Liverpool, L69 7ZD, UK

SOURCE:

Materials Science and Technology (2004), 20(8),

980-984

CODEN: MSCTEP; ISSN: 0267-0836

PUBLISHER:

Maney Publishing

DOCUMENT TYPE:

Journal

English

LANGUAGE:

AB Thiolalkylated polyethylene glycol (PEG)

ligands were designed and synthesized for use in the manufacturing of stable H20

soluble Au MPCs. In addition to ongoing work on the synthesis of size and shape

selective aqueous Au nanoparticles, the effect of avidin Au nanoparticle (AGNP) ratio on biotinylated peptide Au nanoparticles (BPGNP) also was studied.

IT 850444-77-8P

> RL: CPS (Chemical process); PEP (Physical, engineering or chemical process); SPN (Synthetic preparation); PREP (Preparation); PROC (Process) (manufacturing of biocompatible, water soluble gold nanoparticles using thiolalkylated polyethylene glycol)

RN 850444-77-8 CAPLUS H2N-CH2-CH2-O-CH2-CH2-O-CH2-CH2-O-CH2-CH2-O-(CH2)11-SH

REFERENCE COUNT: 7 THERE ARE 7 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

ANSWER 4 OF 10 CAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 2004:424087 CAPLUS

DOCUMENT NUMBER: 141:145667

TITLE: Design of water-soluble quantum dots with novel

surface ligands for biological applications

AUTHOR(S): Uyeda, H. Tetsuo; Medintz, Igor L.; Mattoussi, Hedi CORPORATE SOURCE: Division of Optical Sciences, U.S. Naval Research

Laboratory, Washington, DC, 20375, USA

Materials Research Society Symposium Proceedings SOURCE:

(2004), Volume Date 2003, 789 (Quantum Dots,

Nanoparticles and Nanowires), 111-116

CODEN: MRSPDH; ISSN: 0272-9172 Materials Research Society

PUBLISHER: DOCUMENT TYPE: Journal

English LANGUAGE: OTHER SOURCE(S): CASREACT 141:145667

We have designed a series of organic oligo- and polyethylene glycol (PEG) based surface capping ligands that allow for QD manipulation in aqueous media. We utilized readily available thioctic acid and various oligo- and polyethylene glycols in simple esterification schemes, followed by reduction of the dithiolane to produce multi-gram quantities of capping substrates. Cap exchange of the native trioctyl-phosphine and -phosphine oxide based ligands with the PEG-terminated dithiol-alkyl cap readily resulted in aqueous dispersions of QDs that were homogeneous and stable in various pH ranges

over an extended period of time. Mixed surface capping strategies utilizing ratios of dihydrolipoic acid to the pegylated dihydrolipoic acid were also prepared We anticipated that such systems should allow one to covalently attach amine containing biomols. to nanoparticle systems bearing carboxylates, employing known coupling agents, such as (dimethylamino) propyl-3-ethyl-carbodiimide (EDC). This design and conjugation strategy may facilitate the development of a new generation of QD-bioconjugates, which can be directly utilized in bio-related applications such as sensing and cellular imaging.

ΙT 725211-24-5P

> RL: PRP (Properties); SPN (Synthetic preparation); TEM (Technical or engineered material use); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(design of water-soluble CdSe/ZnS quantum dots with novel pegylated dihydrolipoic acid as surface ligands for biosensing or cellular imaging)

RN 725211-24-5 CAPLUS

Octanoic acid, 6,8-dimercapto-, 2-[2-[2-(2-hydroxyethoxy)ethoxy]ethoxy]eth CN yl ester (9CI) (CA INDEX NAME)

PAGE 1-A

— о- сн₂- сн₂- он

TΤ 725211-26-7P 725211-28-9P

RL: PRP (Properties); SPN (Synthetic preparation); TEM (Technical or engineered material use); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(for coating on quantum dots; design of water-soluble CdSe/ZnS quantum dots with novel pegylated dihydrolipoic acid as surface ligands for biosensing or cellular imaging)

725211-26-7 CAPLUS RN

Octanoic acid, 6,8-dimercapto-, 17-hydroxy-3,6,9,12,15-pentaoxaheptadec-1-CN yl ester (9CI) (CA INDEX NAME)

PAGE 1-A

PAGE 1-B

$$o ch_2 ch_2 o ch_2 ch_2 o ch_2 ch_2 o+$$

RN 725211-28-9 CAPLUS

Poly(oxy-1,2-ethanediyl), α -(6,8-dimercapto-1-oxooctyl)- ω -CN hydroxy- (9CI) (CA INDEX NAME)

$$HS-CH_2-CH_2-CH-(CH_2)_4-C$$
 $O-CH_2-CH_2$ $O-CH_2-CH_2$ $O-CH_2-CH_2$ $O-CH_2-CH_2$

RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

ANSWER 5 OF 10 CAPLUS COPYRIGHT 2005 ACS on STN

17

ACCESSION NUMBER:

2004:5676 CAPLUS

DOCUMENT NUMBER:

REFERENCE COUNT:

TITLE:

140:220643

The zwitterion effect in high-conductivity

polyelectrolyte materials

AUTHOR(S):

Tiyapiboonchaiya, Churat; Pringle, Jennifer M.; Sun,

THERE ARE 17 CITED REFERENCES AVAILABLE FOR THIS

Jiazeng; Byrne, Nolene; Howlett, Patrick C.;

MacFarlane, Douglas R.; Forsyth, Maria

CORPORATE SOURCE:

School of Chemistry, Monash University, Clayton,

Victoria, 3800, Australia

SOURCE:

Nature Materials (2004), 3(1), 29-32

CODEN: NMAACR; ISSN: 1476-1122

PUBLISHER:

Nature Publishing Group

DOCUMENT TYPE:

Journal

LANGUAGE:

English

AB The future of lithium metal batteries as a widespread, safe and reliable form of high-energy-d. rechargeable battery depends on a significant advancement in the electrolyte material used in these devices. Mol. solvent-based electrolytes were superseded by polymer electrolytes in some prototype devices, primarily in a drive to overcome leakage and flammability problems, but these often exhibit low ionic conductivity and prohibitively poor lithium-ion transport. To overcome this, it is necessary to encourage dissociation of the lithium ion from the anionic polymer backbone, ideally without the introduction of competing, mobile ionic species. Here the authors demonstrate the effect of zwitterionic compds., where the cationic and anionic charges are immobilized on the same mol., as extremely effective lithium ion dissociation enhancers. The zwitterion produces electrolyte materials with conductivities up to seven times larger than the pure polyelectrolyte gels, a phenomenon that appears to be common to a number of different copolymer and solvent systems.

IT 439937-61-8P

RN

RL: DEV (Device component use); PEP (Physical, engineering or chemical process); PRP (Properties); PYP (Physical process); SPN (Synthetic preparation); PREP (Preparation); PROC (Process); USES (Uses)

(zwitterion, gels with 'P(AMPSLi-c-DMAA)/PC and also with TiO2; zwitterion effect in high-conductivity polyelectrolyte materials) 439937-61-8 CAPLUS

1H-Imidazolium, 1-butyl-3-(4-sulfobutyl)-, inner salt (9CI) CN

(CH₂)₄ - SO₃-

ONE OR MORE TAUTOMERIC DOUBLE BONDS NOT DISPLAYED IN THE STRUCTURE THERE ARE 13 CITED REFERENCES AVAILABLE FOR THIS REFERENCE COUNT: 13

RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

ANSWER 6 OF 10 CAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 2003:971864 CAPLUS

DOCUMENT NUMBER: 140:31485

TITLE: Immediate-release pharmaceutical formulation of

amidine compounds

INVENTOR(S): Abrahmsen Alami, Susanna; Inghardt, Tord; Magnusson,

Anders; Sigfridsson, Carl-Gustaf; Thune, Mikael

PATENT ASSIGNEE(S): Astrazeneca AB, Swed. SOURCE: PCT Int. Appl., 127 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent LANGUAGE: English

FAMILY ACC. NUM. COUNT:

PATENT INFORMATION:

| PA | TENT | NO. | | | KIN | D | DATE | | | APPL | ICAT | ION 1 | NO. | | D | ATE | |
|----|------|------|-----|-----|------------|-----|------|------|-----|------|------|-------|-----|-----|-----|------|-----|
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| WC | 2003 | 1014 | 23 | | A 1 | | 2003 | 1211 | 1 | WO 2 | 003- | SE85 | 7 | | 2 | 0030 | 527 |
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| | | GM, | HR, | HU, | ID, | IL, | IN, | IS, | JP, | ΚE, | KG, | KP, | KR, | ΚZ, | LC, | LK, | LR, |
| | | LS, | LT, | LU, | LV, | MA, | MD, | MG, | MK, | MN, | MW, | MX, | MZ, | NI, | NO, | NZ, | OM, |
| | | PH. | PI. | PT. | RO. | RU. | SC. | SD. | SE. | SG. | SK. | SL. | TJ. | TM. | TN. | TR. | TT. |

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TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW
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             FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR,
             BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG
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                                20050301
                                            BR 2003-11363
                                                                    20030527
                                            EP 2003-730964
     EP 1513496
                          Α1
                                20050316
                                                                    20030527
             AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT,
             IE, SI, LT, LV, FI, RO, MK, CY, AL, TR, BG, CZ, EE, HU, SK
                                            SE 2002-1658
PRIORITY APPLN. INFO.:
                                                              A 20020531
                                            WO 2003-SE857
                                                                W 20030527
OTHER SOURCE(S):
                         MARPAT 140:31485
GΙ
```

HO N
$$H_2$$
 $N + R^2$ $N + R^2$ $N + R^2$ $N + R^2$ $N + R^2$

AB An immediate-release pharmaceutical formulation is provided comprising (a) as active ingredient, a compound of formula I (R1 = C1-2 alkyl substituted by one or more fluoro substituents; R2 = H, OH, OMe, OEt; n = 0, 1, 2) or a pharmaceutically acceptable salt thereof; and (b) a pharmaceutically acceptable diluent or carrier. When the active ingredient is other than in the form of a salt, the formulation does not solely contain (i) a solution of one active ingredient and water, (ii) a solution of one active ingredient and DMSO, or (iii) a solution of one active ingredient in a mixture of ethanol/ PEG 660 12-hydroxy stearate/water (5:5:90). Such formulations are used for the treatment of a cardiovascular disorder. For example, a solution was prepared by dissolving Compound A [I (R1 = CHF2, R2 = OMe, n = 0) (preparation

Ι

given)] in a hydroxypropyl- β -cyclodextrin/water diluent (40:60 weight/weight%) (136 μ mol Compound A to 1 mL diluent) and adjusting pH to 3.7 with HCl. The solubility of Compound A was at least 700 times higher in this vehicle compared to water alone.

IT 631916-91-1P 631917-18-5P 631917-19-6P 631917-20-9P 631917-31-2P 634151-59-0P

RL: PRP (Properties); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(preparation and immediate-release formulation of amidine compds. for treatment of thrombosis)

RN 631916-91-1 CAPLUS

CN Ethanesulfonic acid, compd. with (2S)-1-[(2R)-[3-chloro-5-(difluoromethoxy)phenyl]hydroxyacetyl]-N-[[4-[imino(methoxyamino)methyl]phenyl]methyl]-2-azetidinecarboxamide (1:1) (9CI) (CA INDEX NAME)

CM 1

CRN 433937-93-0 CMF C22 H23 C1 F2 N4 O5

Absolute stereochemistry.

CM 2

CRN 594-45-6 CMF C2 H6 O3 S

$$\begin{array}{c} {\rm O} \\ || \\ {\rm HO}-{\rm s}-{\rm CH}_2-{\rm CH}_3 \\ || \\ {\rm O} \end{array}$$

RN 631917-18-5 CAPLUS

CN 1-Propanesulfonic acid, compd. with (2S)-1-[(2R)-[3-chloro-5-(difluoromethoxy)phenyl]hydroxyacetyl]-N-[[4-[imino(methoxyamino)methyl]phenyl]methyl]-2-azetidinecarboxamide (1:1) (9CI) (CA INDEX NAME)

CM 1

CRN 433937-93-0

CMF C22 H23 C1 F2 N4 O5

Absolute stereochemistry.

CM 2

CRN 5284-66-2 CMF C3 H8 O3 S

RN 631917-19-6 CAPLUS

CN 1-Butanesulfonic acid, compd. with (2S)-1-[(2R)-[3-chloro-5-(difluoromethoxy)phenyl]hydroxyacetyl]-N-[[4-[imino(methoxyamino)methyl]phenyl]methyl]-2-azetidinecarboxamide (1:1) (9CI) (CA INDEX NAME)

CM 1

CRN 433937-93-0

CMF C22 H23 Cl F2 N4 O5

Absolute stereochemistry.

CM 2

CRN 2386-47-2 CMF C4 H10 O3 S

RN 631917-20-9 CAPLUS

CN Ethanesulfonic acid, compd. with (2S)-1-[(2R)-[3-chloro-5-(difluoromethoxy)phenyl]hydroxyacetyl]-N-[[2,6-difluoro-4-[imino(methoxyamino)methyl]phenyl]methyl]-2-azetidinecarboxamide (1:1) (9CI) (CA INDEX NAME)

CM 1

CRN 433938-32-0

CMF C22 H21 C1 F4 N4 O5

Absolute stereochemistry.

CM 2

CRN 594-45-6 CMF C2 H6 O3 S

$$\begin{array}{c} \circ \\ || \\ \text{HO} - \begin{array}{c} \text{S} - \text{CH}_2 - \text{CH}_3 \\ || \\ \text{O} \end{array}$$

RN 631917-31-2 CAPLUS

CN 1,2-Ethanedisulfonic acid, compd. with (2S)-1-[(2R)-[3-chloro-5-(difluoromethoxy)phenyl]hydroxyacetyl]-N-[[2,6-difluoro-4-[imino(methoxyamino)methyl]phenyl]methyl]-2-azetidinecarboxamide (1:2) (9CI) (CA INDEX NAME)

CM 1

CRN 433938-32-0 CMF C22 H21 C1 F4 N4 O5

Absolute stereochemistry.

$$\begin{array}{c|c} & & & & & & \\ & & & & & \\ \hline F & & & & \\ \hline MeO & & & \\ NH & & & \\ \end{array}$$

CM 2

CRN 110-04-3 CMF C2 H6 O6 S2 HO3S-CH2-CH2-SO3H

634151-59-0 CAPLUS RN

1,2-Ethanedisulfonic acid, compd. with (2S)-1-[(2R)-[3-chloro-5-CN (difluoromethoxy) phenyl]hydroxyacetyl]-N-[[4-[imino(methoxyamino)methyl]ph enyl]methyl]-2-azetidinecarboxamide (1:2) (9CI) (CA INDEX NAME)

CM 1

CRN 433937-93-0

CMF C22 H23 C1 F2 N4 O5

Absolute stereochemistry.

CM 2

CRN 110-04-3 CMF C2 H6 O6 S2

нозs-сн2-сн2-sозн

REFERENCE COUNT:

THERE ARE 8 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L6 ANSWER 7 OF 10 CAPLUS COPYRIGHT 2005 ACS on STN

8

ACCESSION NUMBER:

2003:797006 CAPLUS

DOCUMENT NUMBER:

139:304103

TITLE:

Biosensor chip surface carrying polyethylene

INVENTOR(S):

glycolated nanoparticles Kataoka, Kazunori; Nagasaki, Yukio; Otsuka, Hidenori;

Uchida, Katsumi; Ishii, Takehiko; Suzuki, Yuko;

Akiyama, Yoshitsugu; Takae, Seiji

PATENT ASSIGNEE(S):

Japan Science and Technology Corporation, Japan

SOURCE: PCT Int. Appl., 52 pp.

CODEN: PIXXD2

DOCUMENT TYPE:

Patent

LANGUAGE:

Japanese

FAMILY ACC. NUM. COUNT:

PATENT INFORMATION:

PATENT NO. APPLICATION NO. KIND DATE DATE

WO 2003083478 A1 20031009 WO 2003-JP3504 20030324 W: CA, CN, KR, US RW: AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR 20031009 CA 2003-2480770 CA 2480770 AA 20030324 20050112 EP 1496363 EP 2003-712842 A1 20030324 AT, BE, CH, DE, DK, ES, FR, GB, GR, IT, LI, LU, NL, SE, MC, PT, IE, SI, FI, RO, CY, TR, BG, CZ, EE, HU, SK 20050519 US 2003-509576 20030324 US 2005106570 A1 JP 2005180921 A2 20050707 JP 2003-80524 20030324 PRIORITY APPLN. INFO.: JP 2002-101134 A 20020403 W 20030324 WO 2003-JP3504

AB A highly sensitive bioassay sensor system is provided, with which nonspecific adsorption of impurities such as proteins in a biol. sample is prevented. For amplification in this system used are polyethylene glycolated particles in which a metal or semiconductor common to the sensor material is enclosed. These particles are carried by the biosensor chip surface through a pair of biol. specific binding substances, one of which (e.g., carbohydrate, antigen, hapten, enzyme substrate, hormone, oligonucleotide, biotin) is bound to the particles, and the other of which (e.g., lectin, antibody, enzyme, hormone receptor, complimentary oligo-/polynucleotide, streptavidin) is bound to the sensor surface. A test substance is detected by measuring the change in the extent of binding of the particles to the biosensor chip surface upon the competition by the test substance.

IT 610778-56-8P 610778-57-9P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(biosensor chip surface carrying polyethylene glycolated

nanoparticles)

RN 610778-56-8 CAPLUS

CN Poly(oxy-1,2-ethanediy1), α -(3-mercapto-1-oxopropy1)- ω -(3,3-diethoxypropoxy)- (9CI) (CA INDEX NAME)

RN 610778-57-9 CAPLUS

CN 2-Propenoic acid, 2-methyl-, 2-(dimethylamino)ethyl ester, telomer with α -(3-mercapto-1-oxopropyl)- ω -(3,3-diethoxypropoxy)poly(oxy-1,2-ethanediyl) (9CI) (CA INDEX NAME)

CM 1

CRN 610778-56-8

CMF (C2 H4 O)n C10 H20 O4 S

CCI PMS

$$\begin{array}{c|c} \text{O} & \text{OEt} \\ || & \text{O-CH}_2\text{-CH}_2\text{-CH}_2 \\ \hline \end{array} \\ \text{O-CH}_2\text{-CH}_2\text{-CH}_2 \\ \text{O-CH}_2\text{-CH}_2\text{-CH}_2 \\ \text{O-CH}_2\text{-CH}_2\text{-CH}_2 \\ \end{array}$$

CM 2

CRN 25154-86-3

CMF (C8 H15 N O2)x CCI PMS

CM 3

CRN 2867-47-2 CMF C8 H15 N O2

REFERENCE COUNT: 12 THERE ARE 12 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L6 ANSWER 8 OF 10 CAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 2003:532140 CAPLUS

DOCUMENT NUMBER: 139:106450.

TITLE: Targeted multivalent macromolecules

INVENTOR(S): Wartchow, Charles Aaron; Dechene, Neal Edward; Pease,
John S.; Shen, Zhimin; Trulson, Julie; Bednarski, Mark

David; Danthi, S. Narasimhan; Zhang, Michael; Choi,

Hoyul Steven

PATENT ASSIGNEE(S): Targesome, Inc., USA

SOURCE: U.S. Pat. Appl. Publ., 71 pp., Cont.-in-part of U.S.

Ser. No. 976,254.

CODEN: USXXCO

DOCUMENT TYPE: Patent LANGUAGE: English

FAMILY ACC. NUM. COUNT: 9

PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | | DATE |
|------------------------|------------|----------|-----------------|----|----------|
| | | | | - | |
| US 2003129223 | A1 | 20030710 | US 2002-158777 | | 20020530 |
| US 2002071843 | A 1 | 20020613 | US 2001-976254 | | 20011011 |
| PRIORITY APPLN. INFO.: | | | US 2000-239684P | P | 20001011 |
| | | | US 2001-294309P | P | 20010530 |
| | | | US 2001-309104P | P | 20010731 |
| | | | US 2001-312435P | P | 20010815 |
| | | | US 2001-976254 | A2 | 20011011 |

ΑB Targeted therapeutic agents, comprising a linking carrier, a therapeutic entity associated with the linking carrier, and at least one targeting entity are provided, as well as methods for their preparation and use. A targeted therapeutic agent is selected from matrix metalloprotease inhibitors, analgesics, aggrecanase inhibitors, alkylating agents, topoisomerase inhibitors, estrogens, androgens, interferons, intercalating agents, kinase modulators, etc. The linking carrier comprises a phosphatidylcholine and is selected from liposomes and a polymerized vesicle. A targeting entity targets a lipid construct to a target selected from a cell surface target, an intracellular target, and an extracellular matrix component. The targeting entity has, e.g., a vascular or tumor cell target selected from chemokine receptors, matrix metalloproteases, integrins, or prostate-specific membrane antigens. For example, integrin-targeted 90Y-labeled peptidomimetic vesicle complexes (IA-NP-Y90) at 5 µCi/g reduced tumor growth in a melanoma mouse model with average normalized tumor volume less than half the volume in the buffer-treated animals. In addition, the average tumor volume quadrupling time (TVQT) for tumor

treated with IA-NP-Y90 was 15.0 days compared to 6.4 days for tumors treated with buffer.

477274-37-6DP, polymer containing

RL: SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(paramagnetic nanoparticles containing; preparation of targeted multivalent macromols. for therapy, imaging and diagnosis of cancer)

RN 477274-37-6 CAPLUS

IT

CN

4,22-Dithia-3,7,10,13,16,19,23-heptaazapentacosanedioic acid, 13-[(8R)-8-carboxy-6,6-dioxido-2,11-dioxo-11-[4-[2-[(1,4,5,6-tetrahydro-2-pyrimidinyl)amino]ethoxy]phenyl]-6-thia-3,7,10-triazaundec-1-yl]-10,16-bis(2,13-dioxo-6,9-dioxa-3,12-diazaheptatriaconta-22,24-diyn-1-yl)-8,18-dioxo-2,24-bis[[[4-[2-[(1,4,5,6-tetrahydro-2-pyrimidinyl)amino]ethoxy]benz oyl]amino]methyl]-, 4,4,22,22-tetraoxide, (2R,24R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

PAGE 1-A

Me (CH2) 11 — C
$$\equiv$$
 C — C \equiv C — (CH2) 8 N H

PAGE 1-B

PAGE 2-C

IT 477249-25-5P 477249-26-6P 477249-27-7P 477249-28-8P 477249-29-9P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(preparation of targeted multivalent macromols. for therapy, imaging and diagnosis of cancer)

RN 477249-25-5 CAPLUS

CN 5-Thia-2,6,9-triazadecanedioic acid, 7-(methoxycarbonyl)-, 10-(1,1-dimethylethyl) 1-(phenylmethyl) ester, 5,5-dioxide, (7S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 477249-26-6 CAPLUS

CN 5-Thia-2,6,9-triazadecanedioic acid, 7-carboxy-, 10-(1,1-dimethylethyl) 1-(phenylmethyl) ester, 5,5-dioxide, (7S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 477249-27-7 CAPLUS

CN 2-0xa-7-thia-4,8-diazadecan-10-oic acid, 9-(aminomethyl)-3-oxo-1-phenyl-, 7,7-dioxide, (9S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 477249-28-8 CAPLUS

CN 2-Oxa-7-thia-4,8-diazadecan-10-oic acid, 3-oxo-1-phenyl-9-[[[4-[2-(2-pyrimidinylamino)ethoxy]benzoyl]amino]methyl]-, 7,7-dioxide, (9S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

PAGE 1-A

PAGE 1-B

RN 477249-29-9 CAPLUS

CN L-Alanine, N-[(2-aminoethyl)sulfonyl]-3-[[4-[2-[(1,4,5,6-tetrahydro-2-pyrimidinyl)amino]ethoxy]benzoyl]amino]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

$$H_2N$$
 H_2N
 H_2N
 H_1
 H_2
 H_1
 H_2
 H_1
 H_2
 H_3
 H_4
 H

IT 477274-37-6P

RL: RCT (Reactant); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); RACT (Reactant or reagent); USES (Uses)

(preparation of targeted multivalent macromols. for therapy, imaging and diagnosis of cancer)

RN 477274-37-6 CAPLUS

CN 4,22-Dithia-3,7,10,13,16,19,23-heptaazapentacosanedioic acid, 13-[(8R)-8-carboxy-6,6-dioxido-2,11-dioxo-11-[4-[2-[(1,4,5,6-tetrahydro-2-pyrimidinyl)amino]ethoxy]phenyl]-6-thia-3,7,10-triazaundec-1-yl]-10,16-bis(2,13-dioxo-6,9-dioxa-3,12-diazaheptatriaconta-22,24-diyn-1-yl)-8,18-dioxo-2,24-bis[[[4-[2-[(1,4,5,6-tetrahydro-2-pyrimidinyl)amino]ethoxy]benzoyl]amino]methyl]-, 4,4,22,22-tetraoxide, (2R,24R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

PAGE 1-A

PAGE 1-C

PAGE 2-C

IT 477274-46-7P

RL: SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(preparation of targeted multivalent macromols. for therapy, imaging and diagnosis of cancer)

RN 477274-46-7 CAPLUS

CN L-Alanine, N-[[2-[(1-oxo-10,12-pentacosadiynyl)amino]ethyl]sulfonyl]-3-[[4-

[2-[(1,4,5,6-tetrahydro-2-pyrimidinyl)amino]ethoxy]benzoyl]amino]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

PAGE 1-A

Me
$$(CH_2)_{11}-C \equiv C-C \equiv C-(CH_2)_{8}$$
 NH
 HO_2C

PAGE 1-B

ANSWER 9 OF 10 CAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 2002:346582 CAPLUS

DOCUMENT NUMBER: 138:61132

Gels and nanoparticles responsive to TITLE:

physiological pH

Bae, Y. H.; Na, K.; Han, S. K.; Kang, S. I.; Lee, E. AUTHOR(S):

s.

CORPORATE SOURCE: Center for Biomaterial and Biotechnology, Kwangju

Institute of Science and Technology, Kwangju, 500-712,

S. Korea

SOURCE: Proceedings - 28th International Symposium on

Controlled Release of Bioactive Materials and 4th Consumer & Diversified Products Conference, San Diego, CA, United States, June 23-27, 2001 (2001), Volume 1, 10-11. Controlled Release Society: Minneapolis, Minn.

CODEN: 69CNY8

DOCUMENT TYPE: Conference

LANGUAGE: English

This presentation summarizes our recent works on the properties of soluble polymers, hydrogels, and nanoparticulates (self-assembled nanoparticles and polymeric micelles) that are responsive to pH. Incorporation of a weak acidic moiety of sulfonamide or weak basic imidazole groups into the polymers endowed remarkable pH sensitivities, such as sharp transitions in polymer solubility, swelling volume of hydrogels, nanoparticle aggregation, and micelle disruption in a narrow pH range, particularly around physiol. pH. These aspects of the polymeric systems may provide us new applications in carrier targeting to tumors, pH-triggered release, biosepn., sensor, and actuators.

IT 479586-83-9DP, reaction products with carboxylated lactidepolyethylene glycol block polymer RL: PRP (Properties); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(sulfonamide copolymer gels and nanoparticles responsive to physiol. pH)

479586-83-9 CAPLUS RN

2-Propenamide, N-[4-[[(2,6-dimethoxy-4-pyrimidinyl)amino]sulfonyl]phenyl]-CN 2-methyl-, telomer with 2-mercaptoethanol (9CI) (CA INDEX NAME)

CM 1

CRN 60-24-2 CMF C2 H6 O S

HO- CH2- CH2- SH

CM 2

CRN 479586-82-8

CMF (C16 H18 N4 O5 S)x

CCI PMS

CM 3

CRN 287967-58-2 CMF C16 H18 N4 O5 S

REFERENCE COUNT: 1 THERE ARE 1 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

ANSWER 10 OF 10 CAPLUS COPYRIGHT 2005 ACS on STN

2002:286166 CAPLUS ACCESSION NUMBER:

DOCUMENT NUMBER: 136:311326

TITLE: Coating compositions containing luminescent

semiconductor nanoparticles

INVENTOR(S): Kawa, Manabu

PATENT ASSIGNEE(S): Mitsubishi Chemical Corp., Japan SOURCE: Jpn. Kokai Tokkyo Koho, 19 pp.

CODEN: JKXXAF

DOCUMENT TYPE: Patent Japanese LANGUAGE:

FAMILY ACC. NUM. COUNT:

PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE | | | | |
|--|-------|--------------|--------------------------|----------|--|--|--|--|
| | | | | | | | | |
| JP 2002114928 | A2 | 20020416 | JP 2000-306965 | 20001006 | | | | |
| PRIORITY APPLN. INFO.: | | | JP 2000-306965 | 20001006 | | | | |
| AB The coatings useful | for d | etective app | lications such as finger | print | | | | |
| finding, counterfeit detection, etc., contain polymer binders, | | | | | | | | |
| semi conductor manan | +1 | on of 7n or | Cd type and solvents | | | | | |

semiconductor nanoparticles of Zn or Cd type and solvents.

Thus, adding 0.4 g a triethylene glycol monomethyl ether (I)

11-mercaptoundecanoate to a dissoln. of .apprx.0.5 g CdSe nanocrystals having ZnS shells and Ph3PO ligand on surface in 6 mL CH2Cl2 and reacting in the dark for 18 h gave an EtOH-soluble product containing I as ligand which replaced for Ph3PO. Dissolving the product in CH2Cl2, adding EtOH, evaporating to remove CH2Cl2, mixing with a **polyethylene glycol** methacrylate 0.5, Me methacrylate 0.2, AIBN 0.05 and a poly(ethylene oxide) 0.2 g gave a solution, a finger print obtained from it after impressing on a paper and polymerization by heat showed orange color.

IT 394647-01-9, Triethylene glycol monomethyl ether

11-mercaptoundecanoate

RL: MOA (Modifier or additive use); USES (Uses) (soluble ligands for nanocrystals; coating compns. containing luminescent semiconductor nanoparticles)

RN 394647-01-9 CAPLUS

CN Undecanoic acid, 11-mercapto-, 2-[2-(2-methoxyethoxy)ethoxy]ethyl ester (9CI) (CA INDEX NAME)

$$\begin{array}{c} \text{O} \\ \vdots \\ \text{MeO-CH}_2\text{--CH}_2\text{--O-CH}_2\text{--CH}_2\text{--O-C-(CH}_2)_{10}\text{--SH} \end{array}$$

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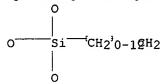
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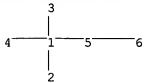
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http://www.cas.org/ONLINE/DBSS/registryss.html

=>

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chain nodes:
1 2 3 4 5 6

chain bonds :

1-4 1-2 1-3 1-5 5-6

exact bonds :

1-4 1-2 1-3 1-5 5-6

Match level :

1:CLASS 2:CLASS 3:CLASS 4:CLASS 5:CLASS 6:CLASS

L7 STRUCTURE UPLOADED

=> d 17

L7 HAS NO ANSWERS

L7 STR

Structure attributes must be viewed using STN Express query preparation.

=> s 17

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SAMPLE SCREEN SEARCH COMPLETED - 7118 TO ITERATE

28.1% PROCESSED 2000 ITERATIONS INCOMPLETE SEARCH (SYSTEM LIMIT EXCEEDED)

50 ANSWERS

SEARCH TIME: 00.00.01

FULL FILE PROJECTIONS: ONLINE **COMPLETE**

BATCH **COMPLETE**

PROJECTED ITERATIONS: 137303 TO 147417 PROJECTED ANSWERS: 37527 TO 42905

L8 50 SEA SSS SAM L7

=> s 17 sss full FULL SEARCH INITIATED 14:48:38 FILE 'REGISTRY' FULL SCREEN SEARCH COMPLETED - 141100 TO ITERATE

100.0% PROCESSED 141100 ITERATIONS

38043 ANSWERS

SEARCH TIME: 00.00.01

L9 38043 SEA SSS FUL L7

=> FIL CAPLUS

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This file contains CAS Registry Numbers for easy and accurate substance identification.

=> s 19

L10 55444 L9

=> s 110 and (PEG or polyethylene glycol)

33451 PEG

1139 PEGS

33929 PEG

(PEG OR PEGS)

330940 POLYETHYLENE

12194 POLYETHYLENES

334671 POLYETHYLENE

(POLYETHYLENE OR POLYETHYLENES)

337044 GLYCOL

44194 GLYCOLS

352141 GLYCOL

(GLYCOL OR GLYCOLS)

95022 POLYETHYLENE GLYCOL

(POLYETHYLENE (W) GLYCOL)

L11 1343 L10 AND (PEG OR POLYETHYLENE GLYCOL)

=> s 111 and nonoparticle

5 NONOPARTICLE 12 NONOPARTICLES 17 NONOPARTICLE

(NONOPARTICLE OR NONOPARTICLES)

L12 0 L11 AND NONOPARTICLE

=> s 111 and biosensor

16102 BIOSENSOR 19017 BIOSENSORS 23294 BIOSENSOR

(BIOSENSOR OR BIOSENSORS)

L13 22 L11 AND BIOSENSOR

=> s 113 and particle

664262 PARTICLE 743680 PARTICLES 1119560 PARTICLE

(PARTICLE OR PARTICLES)

L14 1 L13 AND PARTICLE

=> d l14 ibib abs hitstr tot

L14 ANSWER 1 OF 1 CAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 1999:263353 CAPLUS

DOCUMENT NUMBER: 130:293421

TITLE: A new glucose biosensor based on sandwich

configuration of organically modified sol-gel glass

AUTHOR(S): Pandey, P. C.; Upadhyay, S.; Pathak, H. C.

CORPORATE SOURCE: Department Chemistry, Banaras Hindu University,

Varanasi, 221005, India

SOURCE: Electroanalysis (1999), 11(1), 59-64

CODEN: ELANEU; ISSN: 1040-0397

PUBLISHER: Wiley-VCH Verlag GmbH

DOCUMENT TYPE: Journal LANGUAGE: English

A new glucose biosensor was developed based on the sandwich configuration of organically modified sol-gel glasses. The new sol-gel glass was developed using 3-aminopropyltrimethoxysilane and 2-(3,4-epoxycyclohexyl)ethyltrimethoxysilane. Two types of sol-gel glasses were used to develop glucose biosensors that differ in absence (A) and the presence (B) of graphite powder (particle size 1-2 μ). An addnl. additive (polyethylene glycol , Mol. weight 6000) was also incorporated in both types of the upper sol-gel glass layer. The new sol-gel matrix with immobilized glucose oxidase was analyzed by SEM. The sandwich configuration was developed using a bilayer of sol-gel glasses having a layer of glucose oxidase in between the bilayer. This electrode with special configuration was used to form a layer of sol-gel glass of ca. 0.2 mm thickness. The performance of sol-gel glasses (A and B) was analyzed based on cyclic voltammetry using ferrocene monocarboxylic acid. The results showed a diffusion-limited condition of ferrocene across the sol-gel matrix. The characterization of sol-gel glass-based biosensor was recorded based on the cyclic voltammograms in absence and presence of glucose. The results showed an increase in anodic current which is also characteristic of H2O2 oxidation in both cases (A and B). The responses of the sol-gel glasses-based biosensors were analyzed by chronoamperometry. An amplified signal on the addition of the same concns. of glucose was recorded with the B-type sol-gel glass electrode which was attributed to its relatively high porosity and better conductivity of the graphite loaded sol-gel glass. observations were in accordance with the results on the diffusion of ferrocene and the magnitude of anodic current resulting from H2O2 oxidation The calibration plots for glucose anal. using both type of sensors are reported. Data on the mediated electrochem. oxidation of glucose oxidase

,

using soluble ferrocene were also reported based on cyclic voltammograms and amperometric measurement.

IT 3388-04-3, 2-(3,4-Epoxycyclohexyl)-ethyltrimethoxysilane.

13822-56-5, 3-Aminopropyltrimethoxysilane

RL: NUU (Other use, unclassified); PEP (Physical, engineering or chemical process); PROC (Process); USES (Uses)

(in preparation of glucose **biosensor** based on sandwich configuration of organically modified sol-gel glass)

RN 3388-04-3 CAPLUS

CN Silane, trimethoxy[2-(7-oxabicyclo[4.1.0]hept-3-yl)ethyl]- (7CI, 8CI, 9CI) (CA INDEX NAME)

RN 13822-56-5 CAPLUS

CN 1-Propanamine, 3-(trimethoxysily1)- (9CI) (CA INDEX NAME)

$$\begin{array}{c} \text{OMe} \\ | \\ \text{MeO-Si-} (\text{CH}_2)_3 - \text{NH}_2 \\ | \\ \text{OMe} \end{array}$$

REFERENCE COUNT:

19 THERE ARE 19 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

=> s 114 and polyethylene glycol 330940 POLYETHYLENE

12194 POLYETHYLENES

334671 POLYETHYLENE

(POLYETHYLENE OR POLYETHYLENES)

337044 GLYCOL

44194 GLYCOLS

352141 GLYCOL

(GLYCOL OR GLYCOLS)

95022 POLYETHYLENE GLYCOL

(POLYETHYLENE (W) GLYCOL)

L15 1 L14 AND POLYETHYLENE GLYCOL

=> s 113 and polyethylene glycol

330940 POLYETHYLENE

12194 POLYETHYLENES

334671 POLYETHYLENE

(POLYETHYLENE OR POLYETHYLENES)

337044 GLYCOL

44194 GLYCOLS

352141 GLYCOL

(GLYCOL OR GLYCOLS)

95022 POLYETHYLENE GLYCOL

(POLYETHYLENE (W) GLYCOL)

L16 15 L13 AND POLYETHYLENE GLYCOL

=> d l6 ibib abs hitstr tot

L6 ANSWER 1 OF 10 CAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 2005:350720 CAPLUS

DOCUMENT NUMBER: 143:44178

TITLE: Biomedical applications of gold nanoparticles

functionalized using hetero-bifunctional poly(ethylene

glycol) spacer

AUTHOR(S): Fu, Wei; Shenoy, Dinesh; Li, Jane; Crasto, Curtis;

Jones, Graham; Dimarzio, Charles; Sridhar, Srinivas;

Amiji, Mansoor

CORPORATE SOURCE: Department of Physics, Northeastern University,

Boston, MA, 02115, USA

SOURCE: Materials Research Society Symposium Proceedings

(2005), 845 (Nanoscale Materials Science in Biology and

Medicine), 223-228

CODEN: MRSPDH; ISSN: 0272-9172 Materials Research Society

DOCUMENT TYPE: Journal

LANGUAGE: English

To increase the targeting potential, circulation time, and the flexibility of surface-attached biomedically-relevant ligands on gold

nanoparticles, hetero-bifunctional poly(ethylene glycol) (PEG, MW 1,500) was synthesized having a thiol group on one

terminus and a reactive functional group on the other. Coumarin, a model

fluorescent dye, was conjugated to the PEG spacer and gold

nanoparticles were modified with coumarin-PEG-thiol.

Surface attachment of coumarin through the PEG spacer decreases the fluorescence quenching effect of gold nanoparticles. The

results of cellular cytotoxicity and fluorescence confocal analyses showed

that the PEG spacer modified nanoparticles were

essentially non-toxic and could be efficiently internalized in the cells

within one hour of incubation.

IT 853684-75-0P

PUBLISHER:

RL: BSU (Biological study, unclassified); SPN (Synthetic preparation); BIOL (Biological study); PREP (Preparation)

(synthesis, cytotoxicity study, and fluorescence confocal microscopy of gold nanoparticles functionalized with thiol- and

coumarin-terminated poly(ethylene glycol))

RN 853684-75-0 CAPLUS

CN Poly(oxy-1,2-ethanediyl), α -[[(4-methyl-2-oxo-2H-1-benzopyran-7yl)amino]carbonyl]-ω-(2-mercaptoethoxy)- (9CI) (CA INDEX NAME)

REFERENCE COUNT: 12 THERE ARE 12 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

ANSWER 2 OF 10 CAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 2004:904041 CAPLUS

DOCUMENT NUMBER: 141:362759

TITLE: Water-soluble PEGylated semiconductor

nanoparticles, their manufacture, and

biological diagnostic materials using them

INVENTOR(S): Ogura, Atsuhiko; Kang, Eui-chul; Kataoka, Kazunori; Nagasaki, Yukio

PATENT ASSIGNEE(S):

NOF Corporation, Japan; Science University of Tokyo

SOURCE: Jpn. Kokai Tokkyo Koho, 12 pp.

CODEN: JKXXAF

DOCUMENT TYPE:

Patent

LANGUAGE:

Japanese

FAMILY ACC. NUM. COUNT:

AMILY ACC. NOM. COUNT:

PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | | DATE | |
|------------------------|------|----------|-----------------|---|----------|--|
| | | | | | | |
| JP 2004300253 | A2 | 20041028 | JP 2003-93900 | | 20030331 | |
| US 2004250745 | A1 | 20041216 | US 2004-810305 | | 20040326 | |
| PRIORITY APPLN. INFO.: | | | JP 2003-93900 | Α | 20030331 | |

The nanoparticles comprise (a) group II-VI semiconductor core-shell microcrystals having ZnO, ZnS, ZnSe, or ZnTe shell and (b) polyethylene glycols having Mn 300-20,000 which have SH group at least one end and bind to (a) via Cd. The nanoparticles are manufactured by reacting (b) with Ca salts, and (a) or by adding Cd to the surface of (a) and reacting with (b). (b) may have SH group at one end and CHO, OH, NH2, or CO2H at the other end to which biomols. showing specific recognition ability are bound. Thus, a CHCl3 solution of CdSe-ZnS semiconductor microcrystals (preparation given) was treated with a phosphate buffer containing α-3,3-diethoxypropyl-ω-mercapto- PEG (preparation given) and CdCl3 under vigorous stirring in the dark. The reaction mixture was mixed with hexane and phosphate buffer, separated, and irradiated with UV (254 nm) to show fluorescence only in the lower aqueous layer.

TT 780772-13-6DP, reaction products with CdSe/ZnS core-shell microcrystals and CdCl3

RL: ARG (Analytical reagent use); DGN (Diagnostic use); SPN (Synthetic preparation); ANST (Analytical study); BIOL (Biological study); PREP (Preparation); USES (Uses)

(manufacture of water-soluble PEGylated core-shell semiconductor nanoparticles having ZnO, ZnS, ZnSe, or ZnTe shell, and their application to biol. diagnosis)

RN 780772-13-6 CAPLUS

CN Poly(oxy-1,2-ethanediyl), α -[3-[2-[5-[(3as,4s,6aR)-hexahydro-2-oxo-1H-thieno[3,4-d]imidazol-4-yl]-1-oxopentyl]hydrazino]-3-oxopropyl]- ω -(2-mercaptoethoxy)- (9CI) (CA INDEX NAME)

PAGE 1-A

$$\begin{array}{c|c}
 & H \\
 & N \\$$

PAGE 1-B

L6 ANSWER 3 OF 10 CAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 2004:868459 CAPLUS

DOCUMENT NUMBER: 142:436504

TITLE: Biocompatible gold nanoparticles
AUTHOR(S): Tshikhudo, T. R.; Wang, Z.; Brust, M.

CORPORATE SOURCE: Centre for Nanoscale Science, Department of Chemistry, The University of Liverpool, Liverpool, L69 7ZD, UK

SOURCE: Materials Science and Technology (2004), 20(8),

980-984

CODEN: MSCTEP; ISSN: 0267-0836

PUBLISHER: Maney Publishing

DOCUMENT TYPE: Journal LANGUAGE: English

AB Thiolalkylated polyethylene glycol (PEG)

ligands were designed and synthesized for use in the manufacturing of stable ${\tt H2O}$

soluble Au MPCs. In addition to ongoing work on the synthesis of size and shape ${}^{\circ}$

selective aqueous Au nanoparticles, the effect of avidin Au nanoparticle (AGNP) ratio on biotinylated peptide Au nanoparticles (BPGNP) also was studied.

IT 850444-77-8P

RL: CPS (Chemical process); PEP (Physical, engineering or chemical process); SPN (Synthetic preparation); PREP (Preparation); PROC (Process) (manufacturing of biocompatible, water soluble gold nanoparticles using thiolalkylated polyethylene glycol)

RN 850444-77-8 CAPLUS

CN 3,6,9,12-Tetraoxatricosane-23-thiol, 1-amino- (9CI) (CA INDEX NAME)

H₂N - CH₂ - CH₂ - O - (CH₂)₁₁ - SH

REFERENCE COUNT: 7 THERE ARE 7 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L6 ANSWER 4 OF 10 CAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 2004:424087 CAPLUS

DOCUMENT NUMBER: 141:145667

TITLE: Design of water-soluble quantum dots with novel surface ligands for biological applications

Surface rigands for brotogreat applications

AUTHOR(S): Uyeda, H. Tetsuo; Medintz, Igor L.; Mattoussi, Hedi CORPORATE SOURCE: Division of Optical Sciences, U.S. Naval Research

Laboratory, Washington, DC, 20375, USA

SOURCE: Materials Research Society Symposium Proceedings

(2004), Volume Date 2003, 789(Quantum Dots,

Nanoparticles and Nanowires), 111-116

CODEN: MRSPDH; ISSN: 0272-9172 Materials Research Society

DOCUMENT TYPE: Journal LANGUAGE: English

PUBLISHER:

OTHER SOURCE(S): CASREACT 141:145667

We have designed a series of organic oligo- and polyethylene glycol (PEG) based surface capping ligands that allow for QD manipulation in aqueous media. We utilized readily available thioctic acid and various oligo- and polyethylene glycols in simple esterification schemes, followed by reduction of the dithiolane to produce multi-gram quantities of capping substrates. Cap exchange of the native trioctyl-phosphine and -phosphine oxide based ligands with the PEG-terminated dithiol-alkyl cap readily resulted in aqueous dispersions of QDs that were homogeneous and stable in various pH ranges

over an extended period of time. Mixed surface capping strategies

utilizing ratios of dihydrolipoic acid to the pegylated dihydrolipoic acid were also prepared We anticipated that such systems should allow one to covalently attach amine containing biomols. to nanoparticle systems bearing carboxylates, employing known coupling agents, such as (dimethylamino) propyl-3-ethyl-carbodiimide (EDC). This design and conjugation strategy may facilitate the development of a new generation of QD-bioconjugates, which can be directly utilized in bio-related applications such as sensing and cellular imaging.

IT 725211-24-5P

RL: PRP (Properties); SPN (Synthetic preparation); TEM (Technical or engineered material use); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(design of water-soluble CdSe/ZnS quantum dots with novel pegylated dihydrolipoic acid as surface ligands for biosensing or cellular imaging)

RN 725211-24-5 CAPLUS

CN Octanoic acid, 6,8-dimercapto-, 2-[2-[2-(2-hydroxyethoxy)ethoxy]ethoxy]eth yl ester (9CI) (CA INDEX NAME)

PAGE 1-B

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IT 725211-26-7P 725211-28-9P

RL: PRP (Properties); SPN (Synthetic preparation); TEM (Technical or engineered material use); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(for coating on quantum dots; design of water-soluble CdSe/ZnS quantum dots with novel pegylated dihydrolipoic acid as surface ligands for biosensing or cellular imaging)

RN 725211-26-7 CAPLUS

CN Octanoic acid, 6,8-dimercapto-, 17-hydroxy-3,6,9,12,15-pentaoxaheptadec-1-yl ester (9CI) (CA INDEX NAME)

PAGE 1-B

-- O- CH₂- CH₂- O- CH₂- CH₂- O- CH₂- CH₂- OH

RN 725211-28-9 CAPLUS

CN Poly(oxy-1,2-ethanediyl), α -(6,8-dimercapto-1-oxooctyl)- ω -hydroxy-(9CI) (CA INDEX NAME)

$$HS-CH_2-CH_2-CH-(CH_2)_4-C$$
 O- CH_2-CH_2 OH

REFERENCE COUNT: 17 THERE ARE 17 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L6 ANSWER 5 OF 10 CAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 2004:5676 CAPLUS

DOCUMENT NUMBER: 140:220643

TITLE: The zwitterion effect in high-conductivity

polyelectrolyte materials

AUTHOR(S): Tiyapiboonchaiya, Churat; Pringle, Jennifer M.; Sun,

Jiazeng; Byrne, Nolene; Howlett, Patrick C.;

MacFarlane, Douglas R.; Forsyth, Maria

CORPORATE SOURCE: School of Chemistry, Monash University, Clayton,

Victoria, 3800, Australia

SOURCE: Nature Materials (2004), 3(1), 29-32

CODEN: NMAACR; ISSN: 1476-1122

PUBLISHER: Nature Publishing Group

DOCUMENT TYPE: Journal LANGUAGE: English

AB The future of lithium metal batteries as a widespread, safe and reliable form of high-energy-d. rechargeable battery depends on a significant advancement in the electrolyte material used in these devices. Mol. solvent-based electrolytes were superseded by polymer electrolytes in some prototype devices, primarily in a drive to overcome leakage and flammability problems, but these often exhibit low ionic conductivity and prohibitively poor lithium-ion transport. To overcome this, it is necessary to encourage dissociation of the lithium ion from the anionic polymer backbone, ideally without the introduction of competing, mobile ionic species. Here the authors demonstrate the effect of zwitterionic compds., where the cationic and anionic charges are immobilized on the same mol., as extremely effective lithium ion dissociation enhancers. The zwitterion produces electrolyte materials with conductivities up to seven times larger than the pure polyelectrolyte gels, a phenomenon that appears to be common to a number of different copolymer and solvent systems.

IT 439937-61-8P

RL: DEV (Device component use); PEP (Physical, engineering or chemical process); PRP (Properties); PYP (Physical process); SPN (Synthetic preparation); PREP (Preparation); PROC (Process); USES (Uses)

(zwitterion, gels with P(AMPSLi-c-DMAA)/PC and also with TiO2; zwitterion effect in high-conductivity polyelectrolyte materials)

RN 439937-61-8 CAPLUS

CN 1H-Imidazolium, 1-butyl-3-(4-sulfobutyl)-, inner salt (9CI) (CA INDEX NAME)

ONE OR MORE TAUTOMERIC DOUBLE BONDS NOT DISPLAYED IN THE STRUCTURE

REFERENCE COUNT: 13 THERE ARE 13 CITED REFERENCES AVAILABLE FOR THIS

RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L6 ANSWER 6 OF 10 CAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 2003:971864 CAPLUS

DOCUMENT NUMBER: 140:31485

TITLE: Immediate-release pharmaceutical formulation of

amidine compounds

INVENTOR(S): Abrahmsen Alami, Susanna; Inghardt, Tord; Magnusson,

Anders; Sigfridsson, Carl-Gustaf; Thune, Mikael

PATENT ASSIGNEE(S): Astrazeneca AB, Swed. SOURCE: PCT Int. Appl., 127 pp.

CODEN: PIXXD2

DOCUMENT TYPE: Patent LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

| P | ATI | ENT 1 | . O <i>v</i> | | | KIN | D | DATE | | | | | ION 1 | | | D | ATE | |
|---------|-----------------|-------|--------------|-----|-----|-------------|-----|---------------|------|-----|------|----------|-------|-----|-----|-----|------|-----|
| W | WO 2003101423 | | | | | A1 20031211 | | WO 2003-SE857 | | | | 20030527 | | | | | | |
| | | W: | ΑE, | AG, | AL, | AM, | ΑT, | AU, | ΑZ, | BA, | BB, | BG, | BR, | BY, | BZ, | CA, | CH, | CN, |
| | | | co, | CR, | CU, | CZ, | DE, | DK, | DM, | DZ, | EC, | EE, | ES, | FI, | GB, | GD, | GE, | GH, |
| | | | GM, | HR, | HU, | ID, | IL, | IN, | IS, | JP, | KE, | KG, | KP, | KR, | ΚZ, | LC, | LK, | LR, |
| | | | LS, | LT, | LU, | LV, | MA, | MD, | MG, | MK, | MN, | MW, | MX, | MZ, | NI, | NO, | NZ, | OM, |
| | | | PH, | PL, | PT, | RO, | RU, | SC, | SD, | SE, | SG, | SK, | SL, | TJ, | TM, | TN, | TR, | TT, |
| | | | TZ, | UA, | UG, | US, | UZ, | VC, | VN, | YU, | ZA, | ZM, | ZW | | | | | |
| | | RW: | GH, | GM, | KE, | LS, | MW, | MZ, | SD, | SL, | SZ, | TZ, | UG, | ZM, | ZW, | AM, | AZ, | BY, |
| | | | KG, | KZ, | MD, | RU, | TJ, | TM, | AT, | BE, | BG, | CH, | CY, | CZ, | DE, | DK, | EE, | ES, |
| | | | | | | | | IE, | | | | | | | | | | |
| | | | BF, | ВJ, | CF, | CG, | CI, | CM, | GA, | GN, | GQ, | GW, | ML, | MR, | NE, | SN, | TD, | TG |
| C. | A 2 | 24855 | 533 | | | ΑA | · | 2003 | 1211 | | CA 2 | 003- | 2485 | 533 | - | 2 | 0030 | 527 |
| В: | R 2 | 2003 | 0113 | 63 | | Α | | 2005 | 0301 | | BR 2 | 003- | 1136 | 3 | | 2 | 0030 | 527 |
| E: | Р : | 15134 | 496 | | | A1 | | 2005 | 0316 | | EP 2 | 003- | 7309 | 64 | | 2 | 0030 | 527 |
| | | R: | AT, | BE, | CH, | DE, | DK, | ES, | FR, | GB, | GR, | IT, | LI, | LU, | NL, | SE, | MC, | PT, |
| | | | IE, | SI, | LT, | LV, | FI, | RO, | MK, | CY, | AL, | TR, | BG, | CZ, | EE, | HU, | SK | • |
| PRIORI' | ΤY | APPI | | | | • | , | • | • | | SE 2 | | | | | | | 531 |
| | | | | | | | | | | 1 | wo 2 | 003- | SE85 | 7 | 1 | v 2 | 0030 | 527 |
| OTHER | THER SOURCE(S): | | | | | | РАТ | 140: | 3148 | | | | | | | | | |

OTHER SOURCE(S):

MARPAT 140:31485

GI

AB An immediate-release pharmaceutical formulation is provided comprising (a) as active ingredient, a compound of formula I (R1 = C1-2 alkyl substituted by one or more fluoro substituents; R2 = H, OH, OMe, OEt; n = 0, 1, 2) or a pharmaceutically acceptable salt thereof; and (b) a pharmaceutically acceptable diluent or carrier. When the active ingredient is other than

Ι

in the form of a salt, the formulation does not solely contain (i) a solution of one active ingredient and water, (ii) a solution of one active ingredient and DMSO, or (iii) a solution of one active ingredient in a mixture of ethanol/ PEG 660 12-hydroxy stearate/water (5:5:90). Such formulations are used for the treatment of a cardiovascular disorder. For example, a solution was prepared by dissolving Compound A [I (R1 = CHF2, R2 = OMe, n = 0) (preparation

given)] in a hydroxypropyl- β -cyclodextrin/water diluent (40:60 weight/weight%) (136 μ mol Compound A to 1 mL diluent) and adjusting pH to 3.7 with HCl. The solubility of Compound A was at least 700 times higher in this vehicle compared to water alone.

IT 631916-91-1P 631917-18-5P 631917-19-6P 631917-20-9P 631917-31-2P 634151-59-0P

RL: PRP (Properties); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(preparation and immediate-release formulation of amidine compds. for treatment of thrombosis)

RN 631916-91-1 CAPLUS

CN Ethanesulfonic acid, compd. with (2S)-1-[(2R)-[3-chloro-5-(difluoromethoxy)phenyl]hydroxyacetyl]-N-[[4-[imino(methoxyamino)methyl]phenyl]methyl]-2-azetidinecarboxamide (1:1) (9CI) (CA INDEX NAME)

CM 1

CRN 433937-93-0

CMF C22 H23 C1 F2 N4 O5

Absolute stereochemistry.

CM 2

CRN 594-45-6 CMF C2 H6 O3 S

RN 631917-18-5 CAPLUS

CN 1-Propanesulfonic acid, compd. with (2S)-1-[(2R)-[3-chloro-5-(difluoromethoxy)phenyl]hydroxyacetyl]-N-[[4-[imino(methoxyamino)methyl]phenyl]methyl]-2-azetidinecarboxamide (1:1) (9CI) (CA INDEX NAME)

CM 1

CRN 433937-93-0

CMF C22 H23 C1 F2 N4 O5

Absolute stereochemistry.

CM 2

CRN 5284-66-2 CMF C3 H8 O3 S

RN 631917-19-6 CAPLUS

CN 1-Butanesulfonic acid, compd. with (2S)-1-[(2R)-[3-chloro-5-(difluoromethoxy)phenyl]hydroxyacetyl]-N-[[4-[imino(methoxyamino)methyl]phenyl]methyl]-2-azetidinecarboxamide (1:1) (9CI) (CA INDEX NAME)

CM 1

CRN 433937-93-0

CMF C22 H23 C1 F2 N4 O5

CM 2

CRN 2386-47-2 CMF C4 H10 O3 S

$$_{
m HO-}^{
m O}_{
m S-}^{
m CH}_{
m 2-}^{
m CH}_{
m 2-}^{
m CH}_{
m 2-}^{
m CH}_{
m 2-}^{
m CH}_{
m 3-}^{
m$$

RN 631917-20-9 CAPLUS

CN Ethanesulfonic acid, compd. with (2S)-1-[(2R)-[3-chloro-5-(difluoromethoxy)phenyl]hydroxyacetyl]-N-[[2,6-difluoro-4-[imino(methoxyamino)methyl]phenyl]methyl]-2-azetidinecarboxamide (1:1) (9CI) (CA INDEX NAME)

CM 1

CRN 433938-32-0

CMF C22 H21 C1 F4 N4 O5

Absolute stereochemistry.

CM 2

CRN 594-45-6 CMF C2 H6 O3 S

$$\begin{array}{c} \circ \\ || \\ \text{HO} - \text{S} - \text{CH}_2 - \text{CH}_3 \\ || \\ \circ \end{array}$$

RN 631917-31-2 CAPLUS

CN 1,2-Ethanedisulfonic acid, compd. with (2S)-1-[(2R)-[3-chloro-5-(difluoromethoxy)phenyl]hydroxyacetyl]-N-[[2,6-difluoro-4-[imino(methoxyamino)methyl]phenyl]methyl]-2-azetidinecarboxamide (1:2) (9CI) (CA INDEX NAME)

CM 1

CRN 433938-32-0 CMF C22 H21 C1 F4 N4 O5

Absolute stereochemistry.

CM 2

CRN 110-04-3 CMF C2 H6 O6 S2

 $HO_3S-CH_2-CH_2-SO_3H$

RN 634151-59-0 CAPLUS

CN 1,2-Ethanedisulfonic acid, compd. with (2S)-1-[(2R)-[3-chloro-5-(difluoromethoxy)phenyl]hydroxyacetyl]-N-[[4-[imino(methoxyamino)methyl]phenyl]methyl]-2-azetidinecarboxamide (1:2) (9CI) (CA INDEX NAME)

CM 1

CRN 433937-93-0 CMF C22 H23 C1 F2 N4 O5

Absolute stereochemistry.

CM 2

CRN 110-04-3 CMF C2 H6 O6 S2 REFERENCE COUNT: 8 THERE ARE 8 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L6 ANSWER 7 OF 10 CAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER:

2003:797006 CAPLUS

DOCUMENT NUMBER:

139:304103

TITLE:

Biosensor chip surface carrying polyethylene

glycolated nanoparticles

INVENTOR(S):

Kataoka, Kazunori; Nagasaki, Yukio; Otsuka, Hidenori;

Uchida, Katsumi; Ishii, Takehiko; Suzuki, Yuko;

Akiyama, Yoshitsugu; Takae, Seiji

PATENT ASSIGNEE(S):

Japan Science and Technology Corporation, Japan

SOURCE:

PCT Int. Appl., 52 pp.

DOCUMENT TYPE:

Patent

LANGUAGE:

Japanese

CODEN: PIXXD2

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

| | PAT | ENT 1 | NO. | | | KINI | D | DATE | | | APPL | ICAT | ION | NO. | | D | ATE | |
|-------|-----|-------|------|------|-----|------|-----|------|------|-----|------|------|------|-----|-----|-----|------|-----|
| | | | | | | | _ | | | | | | | | | - | | |
| | WO | 2003 | 0834 | 78 | | A1 | | 2003 | 1009 | 1 | WO 2 | 003- | JP35 | 04 | | 2 | 0030 | 324 |
| | | W: | CA, | CN, | KR, | US | | | | | | | | | | | | |
| | | RW: | AT, | BE, | BG, | CH, | CY, | CZ, | DE, | DK, | EE, | ES, | FI, | FR, | GB, | GR, | ΗU, | ΙE, |
| | | | IT, | LU, | MC, | NL, | PT, | RO, | SE, | SI, | SK, | TR | | | | | | |
| | CA | 2480 | 770 | | | AA | | 2003 | 1009 | (| CA 2 | 003- | 2480 | 770 | | 2 | 0030 | 324 |
| | ΕP | 1496 | 363 | | | A1 | | 2005 | 0112 |] | EP 2 | 003- | 7128 | 42 | | 2 | 0030 | 324 |
| | | R: | ·AT, | BE, | CH, | DE, | DK, | ES, | FR, | GB, | GR, | IT, | LI, | LU, | NL, | SE, | MC, | PT, |
| | | | ΙE, | SI, | FI, | RO, | CY, | TR, | BG, | CZ, | EE, | HU, | SK | | | | | |
| | US | 2005 | 1065 | 70 | | A1 | | 2005 | 0519 | 1 | US 2 | 003- | 5095 | 76 | | 2 | 0030 | 324 |
| | JP | 2005 | 1809 | 21 | | A2 | | 2005 | 0707 | | JP 2 | 003- | 8052 | 4 | | 2 | 0030 | 324 |
| PRIOR | TI | APP | LN. | INFO | .: | | | | | , | JP 2 | 002- | 1011 | 34 | 1 | A 2 | 0020 | 403 |
| | | | | | | | | | | 1 | WO 2 | 003- | JP35 | 04 | 1 | ₩ 2 | 0030 | 324 |

AB A highly sensitive bioassay sensor system is provided, with which nonspecific adsorption of impurities such as proteins in a biol. sample is prevented. For amplification in this system used are polyethylene glycolated particles in which a metal or semiconductor common to the sensor material is enclosed. These particles are carried by the biosensor chip surface through a pair of biol. specific binding substances, one of which (e.g., carbohydrate, antigen, hapten, enzyme substrate, hormone, oligonucleotide, biotin) is bound to the particles, and the other of which (e.g., lectin, antibody, enzyme, hormone receptor, complimentary oligo-/polynucleotide, streptavidin) is bound to the sensor surface. A test substance is detected by measuring the change in the extent of binding of the particles to the biosensor chip surface upon the competition by the test substance.

IT 610778-56-8P 610778-57-9P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(biosensor chip surface carrying polyethylene glycolated nanoparticles)

RN 610778-56-8 CAPLUS

CN Poly(oxy-1,2-ethanediyl), α -(3-mercapto-1-oxopropyl)- ω -(3,3-diethoxypropoxy)- (9CI) (CA INDEX NAME)

$$\begin{array}{c|c} O & & OEt \\ HS-CH_2-CH_2-C & & O-CH_2-CH_2 \\ \hline \end{array} \\ \begin{array}{c} O \\ CH_2-CH_2-CH_2 \\ \hline \end{array} \\ \begin{array}{c} OEt \\ CH_2-CH_2-CH_2 \\ \hline \end{array}$$

RN 610778-57-9 CAPLUS

CN 2-Propenoic acid, 2-methyl-, 2-(dimethylamino)ethyl ester, telomer with $\alpha\text{-}(3\text{-mercapto-}1\text{-oxopropyl})\text{-}\omega\text{-}(3,3\text{-diethoxypropoxy})poly(oxy-1,2\text{-ethanediyl})$ (9CI) (CA INDEX NAME)

CM 1

CRN 610778-56-8

CMF (C2 H4 O)n C10 H20 O4 S

CCI PMS

CM 2

CRN 25154-86-3

CMF (C8 H15 N O2)x

CCI PMS

CM 3

CRN 2867-47-2 CMF C8 H15 N O2

REFERENCE COUNT:

12 THERE ARE 12 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L6 ANSWER 8 OF 10 CAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER:

2003:532140 CAPLUS

DOCUMENT NUMBER:

139:106450

TITLE:

Targeted multivalent macromolecules

INVENTOR(S):

Wartchow, Charles Aaron; Dechene, Neal Edward; Pease, John S.; Shen, Zhimin; Trulson, Julie; Bednarski, Mark David; Danthi, S. Narasimhan; Zhang, Michael; Choi,

Hoyul Steven

PATENT ASSIGNEE(S):

Targesome, Inc., USA

SOURCE:

U.S. Pat. Appl. Publ., 71 pp., Cont.-in-part of U.S.

Ser. No. 976,254.

CODEN: USXXCO

DOCUMENT TYPE:

Patent English

LANGUAGE:

: 9 ´

FAMILY ACC. NUM. COUNT:

PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE | | |
|------------------------|----------|---------------|-----------------|-----------|----------|--|
| | - | - | | _ | | |
| US 2003129223 | A1 | 20030710 | US 2002-158777 | | 20020530 | |
| US 2002071843 | A1 | 20020613 | US 2001-976254 | | 20011011 | |
| PRIORITY APPLN. INFO.: | | | US 2000-239684P | P | 20001011 | |
| | | | US 2001-294309P | P | 20010530 | |
| | | | US 2001-309104P | P | 20010731 | |
| | | | US 2001-312435P | P | 20010815 | |
| | | | US 2001-976254 | A2 | 20011011 | |

AB Targeted therapeutic agents, comprising a linking carrier, a therapeutic entity associated with the linking carrier, and at least one targeting entity are provided, as well as methods for their preparation and use. A targeted therapeutic agent is selected from matrix metalloprotease inhibitors, analgesics, aggrecanase inhibitors, alkylating agents, topoisomerase inhibitors, estrogens, androgens, interferons, intercalating agents, kinase modulators, etc. The linking carrier comprises a phosphatidylcholine and is selected from liposomes and a polymerized vesicle. A targeting entity targets a lipid construct to a target selected from a cell surface target, an intracellular target, and an extracellular matrix component. The targeting entity has, e.g., a vascular or tumor cell target selected from chemokine receptors, matrix metalloproteases, integrins, or prostate-specific membrane antigens. For example, integrin-targeted 90Y-labeled peptidomimetic vesicle complexes (IA-NP-Y90) at 5 μ Ci/g reduced tumor growth in a melanoma mouse model with average normalized tumor volume less than half the volume in the buffer-treated animals. In addition, the average tumor volume quadrupling time (TVQT) for tumor

treated with IA-NP-Y90 was 15.0 days compared to 6.4 days for tumors treated with buffer.

IT 477274-37-6DP, polymer containing

RL: SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(paramagnetic nanoparticles containing; preparation of targeted multivalent macromols. for therapy, imaging and diagnosis of cancer)

RN 477274-37-6 CAPLUS

CN 4,22-Dithia-3,7,10,13,16,19,23-heptaazapentacosanedioic acid, 13-[(8R)-8-carboxy-6,6-dioxido-2,11-dioxo-11-[4-[2-[(1,4,5,6-tetrahydro-2-pyrimidinyl)amino]ethoxy]phenyl]-6-thia-3,7,10-triazaundec-1-yl]-10,16-bis(2,13-dioxo-6,9-dioxa-3,12-diazaheptatriaconta-22,24-diyn-1-yl)-8,18-dioxo-2,24-bis[[[4-[2-[(1,4,5,6-tetrahydro-2-pyrimidinyl)amino]ethoxy]benzoyl]amino]methyl]-, 4,4,22,22-tetraoxide, (2R,24R)- (9CI) (CA INDEX NAME)

PAGE 1-B

PAGE 2-C

IT 477249-25-5P 477249-26-6P 477249-27-7P 477249-28-8P 477249-29-9P

RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)

(preparation of targeted multivalent macromols. for therapy, imaging and diagnosis of cancer)

RN 477249-25-5 CAPLUS

CN 5-Thia-2,6,9-triazadecanedioic acid, 7-(methoxycarbonyl)-, 10-(1,1-dimethylethyl) 1-(phenylmethyl) ester, 5,5-dioxide, (7S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 477249-26-6 CAPLUS

CN 5-Thia-2,6,9-triazadecanedioic acid, 7-carboxy-, 10-(1,1-dimethylethyl) 1-(phenylmethyl) ester, 5,5-dioxide, (7S)- (9CI) (CA INDEX NAME)

RN 477249-27-7 CAPLUS

CN 2-0xa-7-thia-4,8-diazadecan-10-oic acid, 9-(aminomethyl)-3-oxo-1-phenyl-, 7,7-dioxide, (9S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

RN 477249-28-8 CAPLUS

CN 2-Oxa-7-thia-4,8-diazadecan-10-oic acid, 3-oxo-1-phenyl-9-[[[4-[2-(2-pyrimidinylamino)ethoxy]benzoyl]amino]methyl]-, 7,7-dioxide, (9S)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

PAGE 1-A

PAGE 1-B

RN 477249-29-9 CAPLUS

CN L-Alanine, N-[(2-aminoethyl)sulfonyl]-3-[[4-[2-[(1,4,5,6-tetrahydro-2-pyrimidinyl)amino]ethoxy]benzoyl]amino]- (9CI) (CA INDEX NAME)

$$H_2N$$
 H_2N
 H_2N
 H_1
 H_2
 H_1
 H_2
 H_1
 H_2
 H_3
 H_4
 H

IT 477274-37-6P

RL: RCT (Reactant); SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); RACT (Reactant or reagent); USES (Uses)

(preparation of targeted multivalent macromols. for therapy, imaging and diagnosis of cancer)

RN 477274-37-6 CAPLUS

CN 4,22-Dithia-3,7,10,13,16,19,23-heptaazapentacosanedioic acid, 13-[(8R)-8-carboxy-6,6-dioxido-2,11-dioxo-11-[4-[2-[(1,4,5,6-tetrahydro-2-pyrimidinyl)amino]ethoxy]phenyl]-6-thia-3,7,10-triazaundec-1-yl]-10,16-bis(2,13-dioxo-6,9-dioxa-3,12-diazaheptatriaconta-22,24-diyn-1-yl)-8,18-dioxo-2,24-bis[[[4-[2-[(1,4,5,6-tetrahydro-2-pyrimidinyl)amino]ethoxy]benzoyl]amino]methyl]-, 4,4,22,22-tetraoxide, (2R,24R)- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

PAGE 1-A

PAGE 1-C

$$\begin{array}{c}
0\\
\text{N}\\
\text{H}
\end{array}$$
(CH₂)₈-C=C-C=C-(CH₂)₁₁

PAGE 2-C

IT477274-46-7P

RL: SPN (Synthetic preparation); THU (Therapeutic use); BIOL (Biological study); PREP (Preparation); USES (Uses)

(preparation of targeted multivalent macromols. for therapy, imaging and diagnosis of cancer)
477274-46-7 CAPLUS

RN

L-Alanine, N-[[2-[(1-oxo-10,12-pentacosadiynyl)amino]ethyl]sulfonyl]-3-[[4-CN

[2-[(1,4,5,6-tetrahydro-2-pyrimidinyl)amino]ethoxy]benzoyl]amino]- (9CI) (CA INDEX NAME)

Absolute stereochemistry.

PAGE 1-A

Me
$$(CH_2)_{11}-C\equiv C-C\equiv C-(CH_2)_{8}$$
 H
 HO_2C
 H

PAGE 1-B

L6 ANSWER 9 OF 10 CAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 2002:346582 CAPLUS

DOCUMENT NUMBER: 138:61132

TITLE: Gels and nanoparticles responsive to

physiological pH

AUTHOR(S): Bae, Y. H.; Na, K.; Han, S. K.; Kang, S. I.; Lee, E.

s.

CORPORATE SOURCE: Center for Biomaterial and Biotechnology, Kwangju

Institute of Science and Technology, Kwangju, 500-712,

S. Korea

SOURCE: Proceedings - 28th International Symposium on

Controlled Release of Bioactive Materials and 4th Consumer & Diversified Products Conference, San Diego, CA, United States, June 23-27, 2001 (2001), Volume 1, 10-11. Controlled Release Society: Minneapolis, Minn.

CODEN: 69CNY8

DOCUMENT TYPE: Conference LANGUAGE: English

This presentation summarizes our recent works on the properties of soluble polymers, hydrogels, and nanoparticulates (self-assembled nanoparticles and polymeric micelles) that are responsive to pH. Incorporation of a weak acidic moiety of sulfonamide or weak basic imidazole groups into the polymers endowed remarkable pH sensitivities, such as sharp transitions in polymer solubility, swelling volume of hydrogels, nanoparticle aggregation, and micelle disruption in a narrow pH range, particularly around physiol. pH. These aspects of the polymeric systems may provide us new applications in carrier targeting to tumors, pH-triggered release, biosepn., sensor, and actuators.

479586-83-9DP, reaction products with carboxylated lactide-polyethylene glycol block polymer

RL: PRP (Properties); SPN (Synthetic preparation); THU (Therapeutic use);

BIOL (Biological study); PREP (Preparation); USES (Uses)

(sulfonamide copolymer gels and nanoparticles responsive to

physiol. pH)

RN 479586-83-9 CAPLUS

CN 2-Propenamide, N-[4-[[(2,6-dimethoxy-4-pyrimidinyl)amino]sulfonyl]phenyl]-2-methyl-, telomer with 2-mercaptoethanol (9CI) (CA INDEX NAME)

CM 1

CRN 60-24-2 CMF C2 H6 O S

 $HO-CH_2-CH_2-SH$

CM 2

CRN 479586-82-8

CMF (C16 H18 N4 O5 S)x

CCI PMS

CM 3

CRN 287967-58-2 CMF C16 H18 N4 O5 S

REFERENCE COUNT: 1 THERE ARE 1 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L6 ANSWER 10 OF 10 CAPLUS COPYRIGHT 2005 ACS on STN

ACCESSION NUMBER: 2002:286166 CAPLUS

DOCUMENT NUMBER:

136:311326

TITLE:

SOURCE:

Coating compositions containing luminescent

semiconductor nanoparticles

INVENTOR(S):

Kawa, Manabu

PATENT ASSIGNEE(S):

Mitsubishi Chemical Corp., Japan Jpn. Kokai Tokkyo Koho, 19 pp.

CODEN: JKXXAF

DOCUMENT TYPE:

Patent

LANGUAGE:

Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

| PATENT NO. | KIND | DATE | APPLICATION NO. | DATE |
|------------------------|------|----------|-----------------|----------|
| | | | | |
| JP 2002114928 | A2 | 20020416 | JP 2000-306965 | 20001006 |
| PRIORITY APPLN. INFO.: | | | JP 2000-306965 | 20001006 |
| | | | | |

AB The coatings useful for detective applications such as finger print finding, counterfeit detection, etc., contain polymer binders, semiconductor nanoparticles of Zn or Cd type and solvents.

Thus, adding 0.4 g a triethylene glycol monomethyl ether (I)

11-mercaptoundecanoate to a dissoln. of .apprx.0.5 g CdSe nanocrystals having ZnS shells and Ph3PO ligand on surface in 6 mL CH2Cl2 and reacting in the dark for 18 h gave an EtOH-soluble product containing I as ligand which replaced for Ph3PO. Dissolving the product in CH2Cl2, adding EtOH, evaporating to remove CH2Cl2, mixing with a **polyethylene glycol** methacrylate 0.5, Me methacrylate 0.2, AIBN 0.05 and a poly(ethylene oxide) 0.2 g gave a solution, a finger print obtained from it after impressing on a paper and polymerization by heat showed orange color.

394647-01-9, Triethylene glycol monomethyl ether

11-mercaptoundecanoate

RL: MOA (Modifier or additive use); USES (Uses)

(soluble ligands for nanocrystals; coating compns. containing luminescent semiconductor nanoparticles)

RN 394647-01-9 CAPLUS

IT

CN Undecanoic acid, 11-mercapto-, 2-[2-(2-methoxyethoxy)ethoxy]ethyl ester (9CI) (CA INDEX NAME)

$$\begin{array}{c} \text{O} \\ \parallel \\ \text{MeO-CH}_2\text{--CH}_2\text{--O-CH}_2\text{--CH}_2\text{--O-CH}_2\text{--CH}_2\text{--O-C-(CH}_2)_{10}\text{--SH} \end{array}$$

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